L. J. Hickey

UNITED STATES
DEPARTMENT OF THE INTERIOR

DI-6

APPROVED DECEMBER 1941

1974

CLEAR

SANDY LOAM Crops

Looking for Fossils Sec. 23
Supposed in NE 29 T 13S R 98W

No exposure seen from road

Completely around SECTION 29
& NO exposure

at Loc 741 a hill above any
point in SECTION a dirty
white ferruginous Yellow
med gr rounded SS without
MICA - F.U. SS.
Road map
N½ Sec 29 T 13S N R 98W

Xline: ,1— Fd. get Mac +o

July 29

Loc 742 West side of East Rainy Butte near Center Sec 36 T13N R98W

Exposure in SW facing slope ... a reworked golden yell sl. pumiceous tuffaceous ss w feldspar frags.

Therefore White River just above 30' Typical Chadron interbedded Tuffaceous sandstone with no [illegible]

Loc 743 July 30, 1974
HAEBNISCH BUTTE South Side
SE SE Sec 8, T. 140 N. R. 90 W.
Morton Co, N. D.

Loc 743-a -8' below ligw in lower gra

743-b Megafloral Zone
w lignitic sand

743-c base of orange zone
2' above 743 b

743-d From orange zone

743 e middle of "grey marl"

743 f 8" below Camels Butte
CONTACT

743 g Beer Dew Mbr Directly
Below CONTACT w C.B Mbr
0-3" below

743 h Immediately above C.B-BD
CONTACT
Prob Ms pollen

743 i 5-6" above CONTACT C.B-BD
Meliosma, Pterophyllum
Salvinia

loc 743 CONT

743 J +-2 1-1.5' above CONGS.

743 K Base of SILTY UNIT

743 L IS LIMESTONE CONCR. OF COAL

743 M IS COAL ITSELF

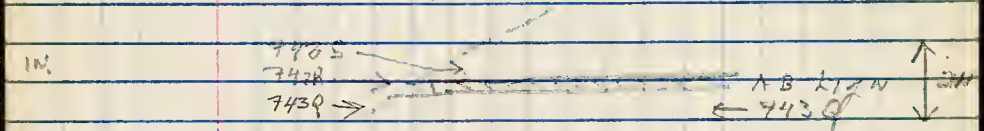
743 m underclay gray lacking bedding 1-2 feet below BASE of COAL

743 ~~m~~ - CLAY above lignite

743 p - 1' to 2' above HB lignite
pelecypods
SAMPLED ISOLATED PALYNUS &
MEGAFOSSILS Magnolia
Tetracentron Alnipollenites Ericoid
Cupuladoipollenites Cupuliferoipollenites
Pseudotsuga Typha

Loc. 743 Contd

743 Q just below AB
1. yn



743 R - AB Light

743 S - Just above AB Light

743 T Lights in lower mbr
at 7413L

Aug 1, 1974

~~744-A~~

AT White Butte

SWSW Sec 24

named
744-A JUST below HS layer
Smith Sh.

745

Aug 1
Cool Cloudy

745 Sec 5 at White Butte
Sec 38 1
From fossil leaf layer

745A First place to climb
[illegible]

745B Laterally at same
[illegible]

Hot & Clear. Aug 5, 1971

Foster Gulch
NE ¼ T8S R21E
Pollen Samples.
7416 Top of #2 COAL
Shale above COAL

747

Aug 5, 1974

Jester Gulch Site along the
Fence Between S-7 & 18
designated.

Concretionary S1757. W1
V.b Cupania des
TCA or STILLINGIA lvs
Beaked Fruits
Metaseque. a
Cenomc

748 Aug. 5, 1934

2½' COAL SEAM 12' ABOVE No 1 COAL IN STRIP MINE IN SE¼ Sec 7 T 8 S R 21 EAST.

UPPER EAST UNION Em. COAL W JAROSITE & GYPSUM LENTICULAR

NO. 1 COAL AT THIS SEC W SILICIFIED LOGS IN UPPER PORTION

748 A ~~Y~~ram COAL

748 B ~~Grey~~ Grey gypsum overgrown SLIST 8" above COAL

748 C Top of #1 COAL

749 Prob NW Sec 17 T 8S R 20W

Fre. water Is Cows
Pes Some in like

S 7 6 S R 2 0 E

Sec 14 Channels in Gulley

IN Sections further along road ~~channel~~ lake material gradually more in evidence i.e. fr. water is cone ledges in limb - Creek if paddled S

7410 ON ELK BASIN Road
BETWEEN Cub Creek. & Easy
DRAW Sec 19
Somber lower FU. (Cub Creek
Phase

Secs 6-5-7-8 S of Long
Draw all Upper LAKE

Sec 16 also LAKE
BUT IN E 1/2 Sec 15
LAKE starts TO grade
EASTward INTO IRVIN

7411 NE 15 T 9S R 23E Carbon Co Wyo Same as 72127

7411a - lower sits below a thin lignite

7411B - Thin carb Brown Clay above lignite

A fluvial sequence

east of here lenticular ss belt of fluvial ss

Aug 6

7412 Serendipity Summit

Same as 72128.

Labeled SD

must be shared with

Aug 6, 1974

7413 Near Elk Basin
NE 26 T 9S R 23E

Lignite w/ shale above it

Lic. Sample 7413 A

Shale w/ what appears to be
Sequoia remains

Aug 6, 1974

7414 SE NE sec 26 T 9S R 23E

Lignite at base of ledge of ~5' mapped as Top of LANCE on APE MAP.

7415 About 100 m further downstream

7416 About 100 m further down from 7415 [illegible] a marine [illegible] in the LANCE

M w Money set to dip

0 big with 6" at BASE of [illegible]

14" Swale in fence

26 SS ledge

31 Swale CAT [illegible]

34 Base of [illegible]

39 Top of Hayfield [illegible]

LANCE

FV.

218 SS bed parallel

52 Limit of 14" alt 60

Swale covered

112 Unwind SS

114 Wd x-bedded SS

113.5 Silty Lignitic Clay

120.5 Wd x bedded iron st SS

121.2 Top of SS

Lay of Interval

Interbedded Lefty & Petrified

S. [illegible] 121.

126.7 AN INTAKE AT ALONG TC
with block
above this a SS

130 Top of SS UNIT
START EXTENSIVE SWALE
which as ever shore
by a yellowish gray silt
+ Clay Content
(Combo of Cl & Cl)

170.5 BASE of [illegible]

171.3 TOP of Swale
INTAKE & Covered
at .30

326 BASE of SS INTAKE
which Begins w/
in Left Green Hill SS
Main C

233.4 TOP of MASSIVE light gray
Clay SS
LIMIT 131. Yell Grey w/
CS (Sh & Limon) Inc
Inc
1" Minor CS.

2' MINOR SS

156.5 Interval logged

161 mod to [illegible]
[illegible]
[illegible] Manganese [illegible]

163 Top UNIT [illegible]

170 BASE [illegible]

174 Top SS [illegible]

184.8 SS [illegible]

193 Top SS UNIT
[illegible]

200 SS.
[illegible]

[illegible]

207 Tod SS.
[illegible]

321	Base [illegible] SS [illegible]
325	Top Minor SS Shale.
340	Base of [illegible] SS [illegible]
356	Top SS [illegible] Shale.
386	SS.
394	Top SS.
395	SS. [illegible]
398.7	Top SS [illegible]
412	Base SS [illegible]
414	Top [illegible]
	423 Base [illegible] SS
436	[illegible]

441.5 BASE FOSSIL LEAF UNIT

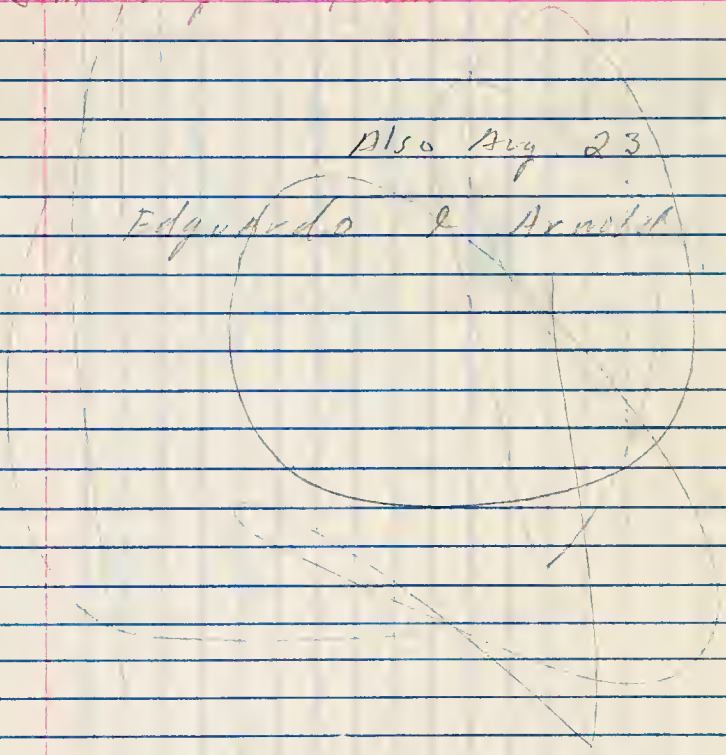
441.9 TOP FOSSIL LEAF UNIT

2" SPACING

FLIP UP

7415 FOSTER GULCH
SS LEDGE LOC.
Jim Ferryno Palm site

Also Aug 23
Edgardo & Arnold



Section 7416. Page 12

STATS in Hell Creek in
NE¼ NW Sec 26 T 95 R 23 E
Carbon Co Wyo in E. p. of
of ELK BASIN. Meas w/ Jacob Staff
& Abney Level

Top
0 Greenish Brown micaceous SLTST
w/ coarse fissility (Pollen sample 7416 A)
0.5 & wedged fig. SLTST (Lrg)
calc reddish brs
Base
Shift 2 ft D

3 TAN wh. SLTST. Mudst.
3.5 TAN & DARK GREY MOTTLED SLTST
w/ CALC nod

5.2 DARK grey fissile CLAYEY SLTST

SS. as in 5.5 ft. clay
6.1 med BR grey w/ calc nod SLTST
7.2 med grey now clayey
Scale Shale
Soft CLAY Thin BR

11.1 Yellowish red BR ss ledge
Base
DARK GREY & greenish br
SLTST
14.1 Laird Fig (Layer) TAN SS

(T-10) wh Prof

ML

14.8

(2) ind

17

sample 7416 B from 31.5

Yell. grey Whitby Klavey Shale

88

Top of RANGE
FU.

Aug 16

7417 Menzelia site

NW SE Sec 27 T 8 S R 23 E

CARBON CO, UTAH ON HUNT Creek

Pl. anvuanae

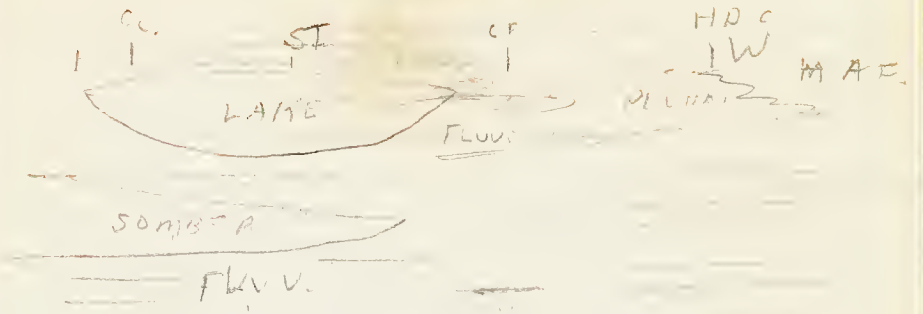
i. comm.

V. b. Antigua?

[illegible] 500' of [illegible]

[illegible]

Sp. 1,7° to SW here


CC.
ST.
CF
HDC
IW
MAE.
LAITE
SOMBRA
FLUV.

7418 SECTION START at SW
SS. Forming top of unit in spot
of Lance on APE map

Below here is country campsite
[illegible] Could be Lance A on
APE or TULLOCK A1 at Seven Pit
Summit.

At ② Top of a N-bedded unit
[illegible] SA CALC SS w/ ST
rx temps.

[illegible] Brown ls
beds 3-5 inch
[illegible]
Crossed 2 SS. To point
14 where ss begins
at 14.2L runs to 14L.
Foresight ended at ③ BACKsight

④ BACKsighting up hill to
point 14L from fossil spot.
Well
AT A0L SHS w Dip [illegible]
[illegible] CAPITAN [illegible] Cr.
[illegible] INN. [illegible]
[illegible] SS.

2 2

8 11

1.8

12.7

12 14L IS 5L Above Fossil Bed.
Fossil Bed 17 24/7 15
99.5 9L Above

7419 Center Sec 4 T. 8 S R 23 E
Carbon Co, Mont near Fatcher
Mts.

Sequence of Dark gray
very (+) fissle shale
& reddish Brown Thin Bedded
(x-bedded) ss. Many Sal.
Concretions & Septarians & Inoceramus.

Top of exposure capped
by 3' X-bedded yellow
buff ss & above ENE
Dark gray shale
yellow buff.

7419 A 2 1/2 m below
a yellow thinly stained
ss forming top of
dark gray shale

7419 B Inverts 2 m
below Lois ss.
7419 C 1.8 m below ss.

pollen simple from a yellowish
gray ash. Mt.
Rose.
7419 D Inverts Inoceramus?
Snails 8-10 m below ss
Bearpaw Fm no -ceramus

7421

NE 1/4 Sec 25 T 8S R 22E

Imp. in Sec COARSE SP to

W E

HI = 5.5' = 1 L (LCU)
W/ Abney set to 0%

14 L

33 L | START of SOMMER LED
COLLECT of yell brown wh.
med gr. Tuff, SA CALC x-bed
SS w/ ripples up to 3' thick
+ lenticular.
INCLUD. yell br wh. SS.
yell br to gren grey
CG CGS.

45 L | Top 3' incl SS. covered

7422 A POLLEN

[illegible] [illegible]
[illegible]
[illegible]
[illegible]
[illegible]

163 Top of [illegible]
Top of section

164 [illegible]
[illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
app. 50 ft [illegible]

[illegible]
[illegible]
[illegible] center sec 33
[illegible] 1642.

7424 SE SEC 1 T9S R23E [illegible]
[illegible]

T 96°
8°

above level. L = 5.5'
STRIKE LANCE CONT 16° D 80° SW

TOP OF LANCE TAN [illegible] SS
[illegible]
[illegible] 72136

Below This ss is aligned to
[illegible] for regional ~~THICK~~
7424a.

0' #2 of 188 From LANCE To
FT. LOCALITY

HI = 5.5'

36.5 L MASC ~~[illegible]~~ Consist of
[illegible]
[illegible]
34 Lignite [illegible] This 7423 is FOSSIL LEV-
31.8' SILTY with SILT

7424

7425

SW Sec 7 T 9S R 24E

Carbon Co

Liverwort.

Fort Union outcrop.
24 m above ss Fox Hills Fm.
Top at Hell Creek Fm.

Pollen sample at 24 m above

Lat

Long

Elev

Strat Layer.

= Loc 7653

-426 SW side Mountrose Ave.
NW¼ NE¼ Sec. 24 T. 5 S. R.
20 E., Carb Co. Mont.

Carb shales interbedded
with sandstone & limestone
[illegible] beds

7/27 Foster Gulch
John Hylton SITE
First Dig site
High x across Fence from
7615' Big Juniper

WASHAKIE UNION

W Cory Sandberg

Mineral
W SHAKIE EN
CHAY JACK W

Bridgerrey
Wasatch Tipton

WASATCH

MESAVERDE

Rechler, H. Buffer in Wasatch

SWEETWATER Arch uses 2 J
Source Through Fill

Paved
37.5 [illegible] B.R.
South on Wam. Ruggs Rd

47.7 RT. Turn

54.5 Rd to paved spur
[illegible]
Cattle Guard

55.3 Track to left.
~~Main~~
Main Track to
Reliance Point Cross S.
Go up hill.

56 Fire Bear RT

56.1 Fork Stay Straight

56.3 Through Sylvan to
PT.

7428 Green River Tom
Tansy Juniper

83 [illegible] DAD on Wyo 789

88.8 TO TURN OFF

90.3 BACK AT Fence

90.4 Road to Outcrop

LEFT TURN

96.4 Road From outcrop

(2) AT POINT 2

Road EAST of
outcrop

97.1 Left on Pipeline
Road.

300.9 South side of Bridge
over Muddy Creek.

RT TURN onto Wyo 789

311.8 Cercidiphyllum
Lot. 1/2 mi.
TO EAST off
rim.
JUST AT change of
pavement

7429

a - Fossil Leaf Horizon
just below lignite

b - Lower pollen 20' above lign

c - Upper lign sample

Upper F.V. fm.
1/2 mi E of WRATCH
Cont. Dip of F.V. 40° W

Log Conn.

319.6 Road exit to Canyon East of Hwy
abt 1 mile of Hwy
leaf prospecting Red ss
& clinker Meth.

321.5 Int w/ I-80
at Creston Jct.

Miner St.

300 Miner Road.

S to W. Int w/ 1000'
of Bldg. Rd W
// RR for 4 mi

with 300 yards
left turn. SE 1/2 mi?
Dim Road 70 55 mi.

46.8 Motel

7

Cercidiphyllum loc.
Just off rim

Best loc. 200-300'
To The South.

At Hwy 86.7

Go to top of Hill
over 9 to South
side Pine
Cove Rd.
N.H. 4.

Hill Motel 91.0

77.7
79.2
79.6 At road

91.0 other road to North
forking SE
just past gate

92.8 At North road

402.6
92.8
9.8 mi on 1 11.2 mi

7/30 Head of Coal Bank WASH

Russell [illegible]

Howard Reynolds
Hornell

Elongate "Bottle Brush" Cattail

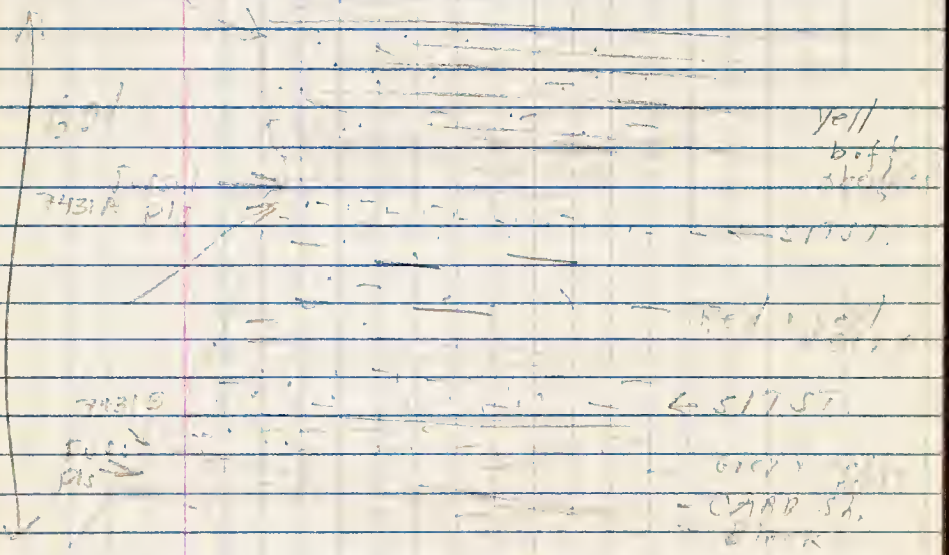
2½" x 3¼ in.
Covered [illegible] elongate axis
[illegible]

Circle of leaves well preserved

Sapindopsis
[illegible]

Dave Dilcher Ann Aug 19
Call this Fri Sat
Sun 12

7431 S½, SE¼ NE¼, Sec. 34, T12S, R14W
Russell Co., Kan.



N Bluffs of Saline River on Hwy 281
1st N. of Sal. River, 4½ mi N. of
Russell, Kan.

Clausen Isc pl.

Sapindopsis variabilis
Archaeopteris macilenta
Dorinys" [illegible]
[illegible]
Much Birmel wood.

7431 B Poles from lower bed
[illegible]

7431 A Upper bed [illegible]
Dallas [illegible]

October 8

7:22

Box Lobby

#1 7412, 7415, 7417

#2 743E, 7415E, 7412E

#3 743, 7424

#4 743, 7424, 7425

#5 7412E, 743E 747E

#6 743, 747, WB, 7423, 7415, 7417

#7 WBE, 7415E

#8 7415E, 7417E, 745E, 7403E, 7429E
7421E, 7424E

Soil Maps of United States

Harold D Zeller 1963
MIN INV MAP MF-- 26